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MAPS

GEOLOGICAL SURVEY OF OHIO,

VOL. II, 1874.

GEOLOGICAL SURVEY OF OHIO

Vol. II

CHART No. 1.

SECTIONS OF THE COAL MEASURES

IN

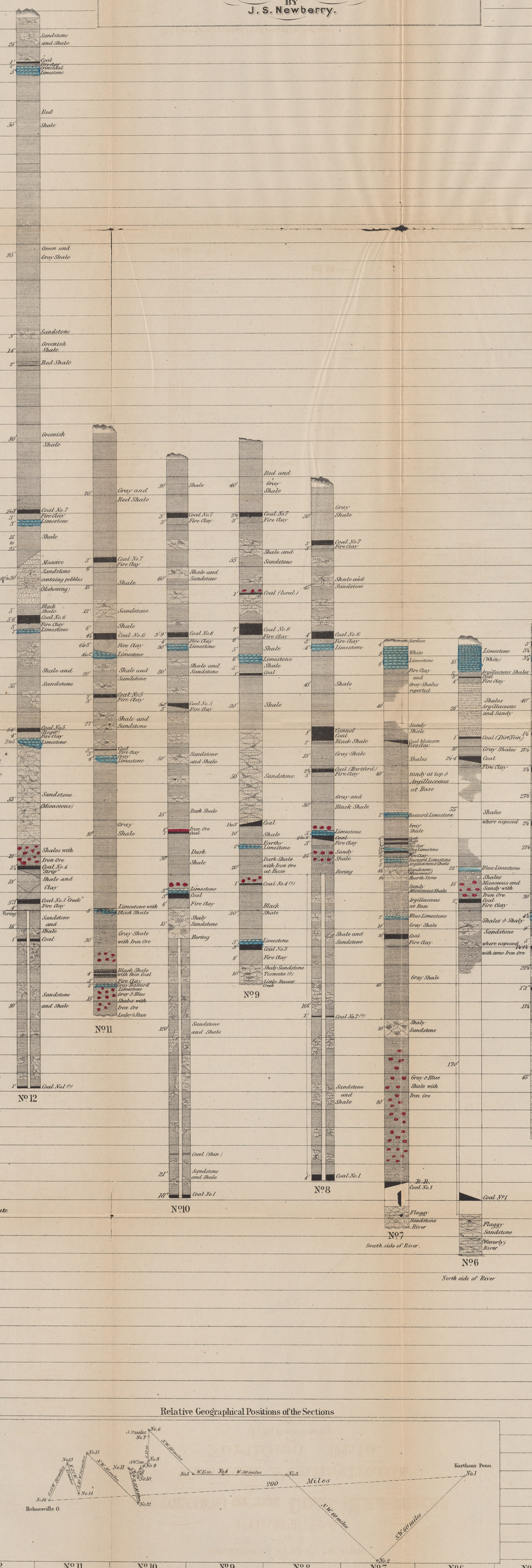
Western Pennsylvania

AND

Northern Ohio.

BY

J. S. Newberry.


Sandstone and Shale
Coal
Fire clay
Crinoidal Limestone
Red Shale
Green and Gray Shale
Sandstone
Greenish Shale
Red Shale
Greenish Shale
Massive Sandstone containing pebbles (Mahoning)
Black Shale
Coal No. 6
Fire Clay
Limestone
Shale
Coal No. 7
Fire Clay
Limestone
Shale and Sandstone
Gray and Red Shale
Sandstone
Coal No. 6
Fire Clay
Shale and Sandstone
Coal No. 5
Fire Clay
Red and Grey Shale
Coal (local)
Gray Shale
Coal No. 7
Fire Clay
Shale and Sandstone
Coal No. 6
Fire Clay
Limestone
Shale
Coal
Limestone
Shale
Coal No. 5
Fire Clay
Tionesta Coal
Black Shale
Coal (Hartford) Fire Clay
Gray and Black Shale
Coal
Shale
Limestone
Coal
Fire Clay
Dark Shale
Iron Ore Coal
Dark Shale
Limestone
Coal
Fire Clay
Shaly Sandstone
Boring
Shale and Sandstone
Coal No. 1
Sandstone and Shale
Coal (thin)
Sandstone and Shale
Coal No. 1
Surface
White Limestone
Fire Clay and Gray Shales reported
Sandy Shale
Coal blossom Fire Clay
Shales sandy at top & Argillaceous at Base
Bastard Limestone
Gray Shale
Coal
Fire Clay
Limestone
Coal
Fire Clay
Sandy Shale
Boring
Shale and Sandstone
Coal No. 1
Gray & Blue Shale with Iron Ore
Flaggy Sandstone
River
Limestone (White)
Argillaceous Shales
Coal
Fire Clay
Shales Argillaceous and Sandy
Coal (Dirt Vein)
Gray Shales
Coal
Fire Clay
Shales where exposed
Blue Limestone
Shales Micaceous and Sandy with Iron Ore
Coal
Fire Clay
Shales & Shaly Sandstone where exposed with some Iron Ore
Coal No. 1
Flaggy Sandstone (Waverly) River
U.F. Coal
Fire Clay
Freeport Limestone
Shale and Sandstone
L.F. Coal
Shale and Sandstone
Ferriferous Limestone
Shale
Sandstone
Clarion Coal
Sandstone and Shale
Brookville Coal
Shale
Tionesta Sandstone
Hands of Black Shale & Sandstone
Black Shale
Pittsburg Upper Member
Fire Clay & Shale
Pittsburg Coal
Lower Member
Fire Clay
Limestone
Sandstone
Compact Shale
Shale
Limestone
Shale
Sandstone
Olive and Red Shale
Shaly Sandstone
Shale (Olive) Coal
Shale
Elk Lick Coal
Shale or Clay
Buff and Black Shale
U.F. Coal
Fire Clay
Olive Shale
Freeport Limestone
Fire Clay
Olive Shale (sometimes) Sandstone
Black Shale
Lower Freeport Coal
Fire Clay
Yellow Clay sometimes Limestone
Shale
Sandstone
Coal
Shale
Sandstone
Shale
Sandstone
Shale and Coal
Sandstone
Shale
Sandstone
Coal
Fire Clay
Shale and Sandstone
Coal
Fire Clay
Shale
Sandstone

GEOLOGICAL SURVEY OF OHIO

Vol. II.

CHART No. 2.

SECTIONS OF THE LOWER COAL MEASURES OF Northern and Central Ohio.

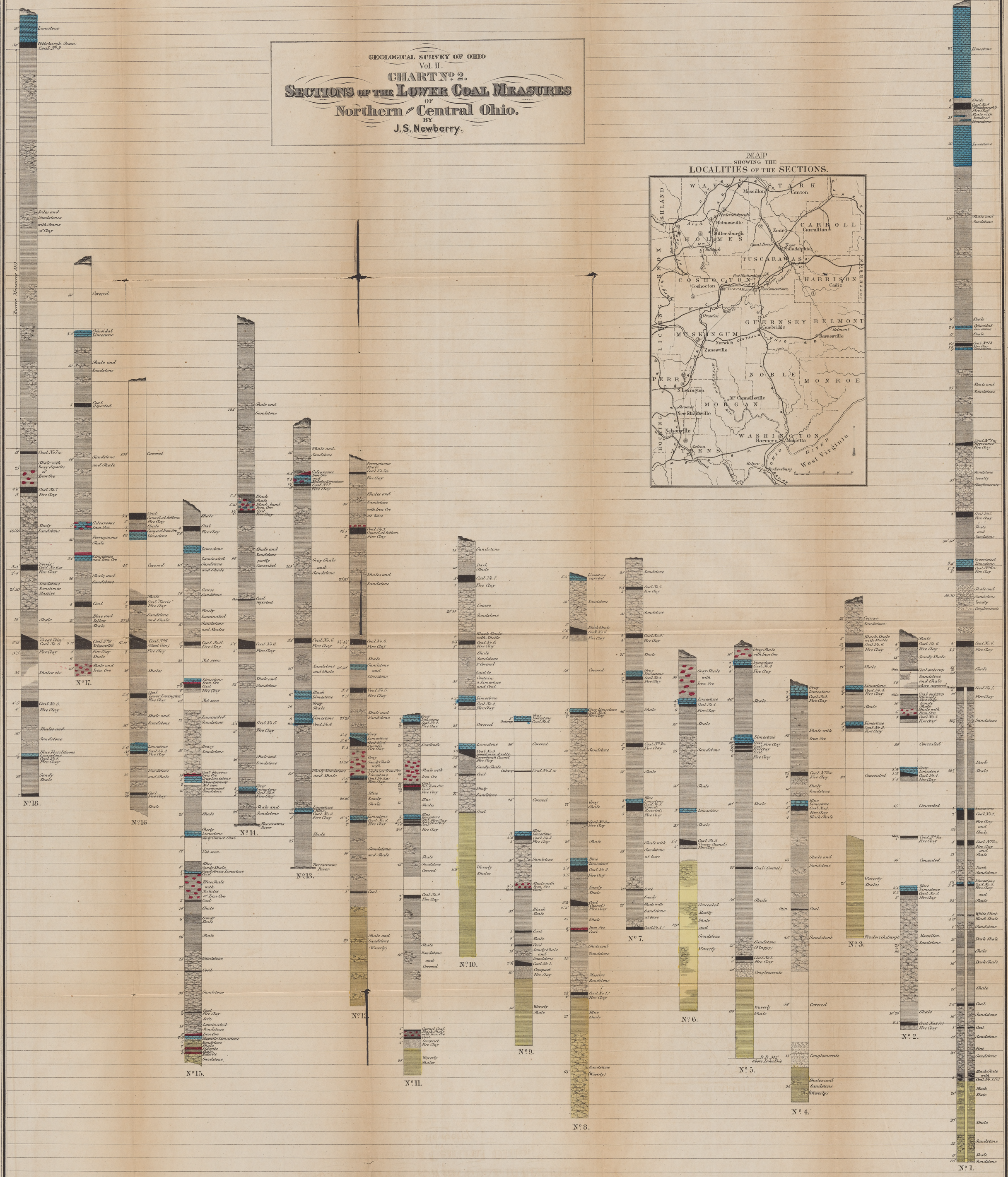
BY

J. S. Newberry.

MAP

SHOWING THE

LOCALITIES OF THE SECTIONS.



No 18.	No 17.	No 16.	No 15.	No 14.	No 13.	No 12.	No 11.	No 10.	No 9.	No 8.	No 7.	No 6.	No 5	No 4.	No 3.	No 2.	No 1.
General Section of Trimble & Ames Tps. Athens Co. M. C. Read.	Section on Snow Fork Perry Co. M. C. Read.	Section on Snow Fork Perry Co M. C. Read	General Section of the Lower Coal Measures Muskingum Co. E. B. Andrews.	Section at Port Washington Tuscarawas Co.	Section in Tuscarawas Township Coshocton Co	Section on Simmons Run Coshocton Co.	Section in Knox Township Holmes Co.	Section in Knox Township N.W. part Holmes Co.	Section in Munroe Township Holmes Co.	Section at Hills West of Millersburgh Holmes Co.	Section in Mechanic Tp. Holmes Co.	Section at Millersburgh Holmes Co.	Section 3 Miles North of Millersburgh Holmes Co.	Section in Prairie Township Holmes Co.	Section at Fredericksburgh Wayne Co.	Section at Dundee and Sugar Creek Tuscarawas Co.	Section from Belmont to Urichsville on Stillwater

GEOLOGICAL SURVEY OF OHIO

Vol. II

CHART No. 4.

SECTIONS OF THE COAL MEASURES

ON THE

OHIO RIVER

BETWEEN

Browns Station AND Moundsville.

BY

J.S. Newberry and Henry Newton

Hill Top 621' above low water in Ohio river
Shale, Sandstone Streaks of red Shale
153'
Hill Top 493 ft. above C & P R.R.
Concealed
105'
Limestone outcrop
Concealed
Coal reported 4'
Buff Limestone
7'
Shale
6'
Coal poor and slaty
Fire Clay
where observed Sandy Shale
62'
where exposed grey Sandy Shales
100'?
Fragments of buff limestone on surface
63'
Sandy Shales with streaks of red Shale
5'
Pittsburg Coal
50'?
5½'
Gray buff Limestone
18'
Concealed
4'
Coal reported poor
Hill Top 360' above River
Limestone outcrop
Sandy Shales & Shaly Sandstone
Shaly Sandstone
Gray Limestone
17'
Gray Shale and Shaly Sandstone
27'
72'
Coal blossom
2'
Hard gray Limestone
12'
Gray Shale
Shaly Sandstone
Shales with beds of Limestone
Coal, Argillaceous Shale
Shaly Sandstone
18'
Limestone
4'
Clay with Limestone
81'
Concealed
162'
Limestone & Cement rock
18'
Cement rock
9'
Shale and Limestone
10'
Gray Shale
4'
Coal
Argillaceous Shale
5'
10'
Fire Clay
Light gray Limestone
5½'
30'
Cement rock
18'
Sandstone
Thin Shale Coal 40ft. above River
3'
Miliaceous Sandstone
36'
54'
Coal interior
4'
Sand rock
27'
Coal 8" Limestone
Cement rock
Coal outcrop Blue gray Limestone
20'
Cement rock
Partings
Shales?
Limestone reported 8-10
Coal
Coal
Coal
Limestone reported
Shales
Two coal seams reported back on the hills one 2' & the other 4-6'
Cement rock
16'
Shales
4'
Coal
Sandstone more or less Shaly
12'
17'
Gray Shale, argillaceous
20'
Coal
2'
Buff Limestone & Cement rock
20'
Shales
roof Coal Shale
Pittsburg Coal
Black Shale
Limestone nodular
15½'
Iron reported fragments observed
Shales
248'
Strata of Limestone & Cement rock with beds of Argillaceous Shale 63'
20'
5'
Black Shale
1'
Limestone & Cement rock (Cement rock qy.)
22'
Shales
4'
roof Coal Shale
12'
Pittsburg Coal
4'
Limestone Clay
4'
Sandstone in thin beds separated by Shale
Shales
37'
Sandstone
Shales
Clay Limestone Coal red streak with Limestone nodules
Fragments of Buff Limestone on Hill Side
Shales and Micaceous & Shaly Sandstone
47'
Coal blossom in road
4'
5½'
Pittsburg Clay
Coal
Impure gray Limestone
5'
Beds of Limestone and Shale
20'
Clay and thin Limestone
5'
Limestone (Cement rock)
10'
Clay and Clay Shale
10'
Limestone impure
5'
18'
concealed
Shaly Sandstone & gray Shales
18'
Black Shale
Coal
gray rock
Coal Blossom
4'
Buff Limestone
22'
Concealed
247 ft.
Shales reported
20'
Roof Coal Argillaceous Shale
4'
18"
Pittsburg Coal
Fire Clay
Sandy & Clay Shale
Massive Sandstone
Pittsburg Coal
Buff Limestone
7'
Pittsburg Coal
Concealed
Green and Olive Shale
Sandy Shales
Limestone nodules
Clay and Sandy Shales
81'
Sandstone & Shales where exposed
Shale
gray fossiliferous Limestone
2'
gray Limestone
6'
24'-3'
Shale
45'
Sandstone
20"
Coal
where exposed Sandy Shales and Shaly Sandstone
198'
Distance between the two Coal beds 502 ft.
about 337' from top of platform to upper Coal
225 ft. deep to bottom of the Coal
Shaft 183' from top of platform to bottom of Coal
Olive Shales
20'
Limestone
8'
120'
Sandstone more or less Shaly
30'
Sandstone (massive)
Concealed
140'
Limestone (gray) reported 8'
Limestone reported.
Pittsburg Coal reported 4'
Limestone reported.
Concealed
Limestone reported.
Pittsburg Coal reported 4'
Limestone reported.
Concealed
Limestone reported
Pittsburg Coal reported 4' 10"
Limestone seen in road.
Top of Hill 465 ft. above R.R.
Concealed
40'
Shales with thin seams of Sandstone
15'
Concealed
34'
Massive Sandstone
25'
Sandstone
10'
Cannel Coal owned by Ismatic mine
2½'
Shale
Concealed
Cannel Coal reported 2' 8" shows 4' 3"
31'
4'
Sandstone
6'
Sandstone & Shales
Cannel Coal local
17'
Sandstone
Sandy Shale with seams of Coal
3'
Coal
Fire Clay
10'
50'
Sandstone
Sandstone (partially covered)
60'
Limestone (gray)
2'
Sandstone
23'
25'
Olive Shales
Cannel Coal not seen
No 2
Olive Shale
45'
Olive Shales
Cannel Coal
46'
Limestone Crystaline somewhat fossiliferous
1'
Shales
Shaly Sandstone
42'
Coal very good quality
28'
Fire Clay reported 6'
6'
55'
Concealed
No 1
Sandy Limestone
5'
3'
4'
Coal
2'
Fire Clay
Black Shale Coal poor and small Shales
27'
Fossiliferous Limestone
Shale
50'
Shales & Sandstone
80'
Concealed
Cliff of Shales
50'
Olive Shale
20'
Sandstone
20'
Concealed
Olive Shale
40'
Fire Clay with fos. marine Olive Shale
1'
4'
Concealed
12'
Sandstone
Massive Sandstone
75'
Shales & Sandstone
40'
Quarry
26'
Bituminous Shale & Sandstone
4'
½'
Fire Clay
(upper part Concealed)
45'
Sandstone
25'
Shale
47'
Concealed
Coal
43'
15' to 20'
Shale
8'
Coal
10'
Shale
4'
Shale Limestone
Creek
Mc Ilroy's boring
Soil
Sandstone
8'
12'
Coal
2'
4'
Clay
5'
concealed
Shale
10'
Fire Clay (hard)
30'
Sandstone
20'
Limestone (reported)
3'
No 3
No 4
No 4a
C & P R.R.
82 Ft. above Lake Erie
96 Ft. above Lk. Erie
90 Ft. above Lk. Erie
Level of C & P R.R.
Level of Ohio River Low Water
Top of Shaft.
Sandstone (reported)
60'
Sandstone reported
Heavy Sandstone reported
Argillaceous Shale (reported)
Thin seam of Coal reported half way down
Coal reported
6"
Argillaceous Shale reported
85'
Coal reported
4'
Sandstone reported
23'
Black Shale reported
12'
Coal No 6
10" to 20"
Fire Clay reported 3' 8"
Sandstone (reported)
46'
Sandstone
40'
Black Shale
Coal No 6
20"
4½-8½
Fire Clay
Limestone nodules reported
Shale and little Coal
Sandstone
Depth of bore 94 Ft.
No 12
No 11
No 10
No 9
No 8
Coal No 6 worked under the River
4'
Coal legally descended to next seam
0'-18'
Coal No 6.
61'
Sandstone
16'
3'
6'
2'
10
7'
13½
4½
8
13'
2½
1½
12'
13'
1½
3'
3'
29'
16'
Fire Clay
Soapstone
Fire Clay
Black Sandrock
Coal?
Fire Clay
State
Coal No 6
Slate
Fire Clay
Blue State
Coal
Fire Clay
White Sandstone
Black Sandstone
Coal
Sandstone
Fire Clay
Blue Sandstone
White Sandstone
Depth of Boring 351 ft.
No 7
Black Shale
Coal No 6
Fire Clay
Limestone nodules
Clay Shale
Sandstone
Shale
Black Slate
Blue Slate
Gray Slate
Fire Clay
Slate
Depth of Boring 354 ft.
No 6
Sandstone
39'
Fire Clay
21'
Green Sandstone
28'
Black Sandstone
18'
White Sandrock
90'
Black Sandrock
Coal?
Fire Clay
Soapstone
Fire Clay
Black Sandstone
State
Coal No 6
Slate
Fire Clay
Blue State
Fire Clay
Sandstone
Fire Clay
Black Sandstone
Coal
Sandstone
Fire Clay
Blue Sandstone
White Sandstone
Fire Clay & Shale
Sandstone
Coaly Seams
Shale
Sandstone
Shale
Coal No 6.
Fire Clay
blue State
Coal
Fire Clay
Sandstone
dark blue Calcareous
Sandstone
Fire Clay
Sandstone
Top of Shaft.
Coal No 7.
Coal No 6.
Limestone ?
Sandstone
Shale (hard)
Coal
Depth of bore 251 ft.
No 5
Shale
Sandstone
Depth of Boring 354 ft.
No 6
Shale
Coal
Shale
Coal
Shale
Limestone reported
Coal
Shale
Coal
Clay
concealed
Shale
Fire Clay (hard)
Sandstone
Limestone (reported)
Level of Ohio River
white Sandstone
Flint rock (bored 3 days)
blue Sandstone
black Slate
Coal No 6
blue Clay
Limestone
Shale
black Shale
Coal (cannel ?)
blue Shale
blue Sandstone
white Sandstone
gray Sandstone
blue Flint rock
blue Sandstone
black Shale
Coal
blue Shale
No 4
Limestone and Shales
Shale
Limestone
Clay
Coal Cannel
Clay
Limestone nodular
Argillaceous Shale
roof Coal
Coal Shale
Pittsburg Coal about 15 below Ohio R. at low water
Black Slate & Clay
Limestone
No 18
Coal interior
Sand rock
Coal 8"
Limestone
Cement rock
No 17
Limestone
Cement rock
Coal
Coal
Coal
Limestone reported
Sandstone
Shales?
roof Coal
Shale
Pittsburg Coal
Black Shale
Limestone nodular
No 16
roof Coal
Shale
Pittsburg Coal
Black Shale
Limestone
Limestone
Cement rock
Thin Shale Coal 40ft. above River
Miliaceous Sandstone
Coal outcrop
Blue gray Limestone
Cement rock
Partings
Strata of Sandstone reported
Limestone
Cement rock
Shales
Coal
Sandstone more or less Shaly
Gray Shale, argillaceous
Coal
Buff Limestone & Cement rock
Shales
roof Coal Shale
Pittsburg Coal
Black Shale
Limestone nodular
No 15
Shales
Sandstone in thin beds separated by Shale
Limestone Clay
Shales
Sandstone
Shales
Clay Limestone Coal red streak with Limestone nodules
No 14
No 13
Limestone & Cement rock (Cement rock qy.)
Shales
roof Coal Shale
Pittsburg Coal
Limestone Clay
Sandstone in thin beds separated by Shale
Shales
Sandstone
Shales
Clay Limestone Coal red streak with Limestone nodules
Limestone nodules
Clay and Sandy Shales
Sandstone
Coal
Shale
Sandstone
Coal
Shale
Limestone
Shale
Sandstone
Coal
Shale
Limestone
Shale
Sandstone
Coal
Shale
Limestone

Horizon of CUMBERLAND SEAM

Horizon of POMEROY SEAM of Coal

Horizon of CAMBRIDGE LIMESTONE.

Horizon of AMES LIMESTONE.

Tunnel at Cambridge

MAP No 12
of Grouped Sections of
NOBLE AND SOUTH HALF OF GUERNSEY COUNTIES,
BY
E.B. Andrews & W.B. Gilbert,
VERTICAL SCALE TEN FEET TO HALF INCH.